Article 34 Amendment
(Dated September 6, 2004)

<Second amendment>

Claims

1. (Amended) A method for recovering performance of a discharge gas processing apparatus, which apparatus includes a honeycomb catalyst having gas conduits for feeding a gas to be treated, the catalyst being provided in a discharge gas conduit of the apparatus and, in use, performing gas treatment on the sidewalls of the gas conduits, characterized in that the honeycomb catalyst is in the form of a single layer of a flue gas NO_x removal catalyst, and that the method comprises rearranging the honeycomb catalyst for recovering performance thereof such that a deteriorated portion of the honeycomb catalyst is transferred from the inlet side of the discharge gas conduit so that a predetermined range of the discharge gas conduit from the inlet side represents a portion other than the deteriorated portion, wherein the deteriorated portion is on the upstream side in terms of the flow of the gas to be treated, extends to cover the predetermined range of the honeycomb catalyst, and is determined on the basis of a sustained turbulent flow distance which is the distance from the inlet to a site where turbulent flow energy is lost in the course of transition from turbulent flow to laminar flow.

2. A method for recovering performance of a discharge gas processing apparatus according to claim 1, wherein the honeycomb catalyst is rearranged such that the gas feed

direction is inverted and the deteriorated portion is disposed on the downstream side in terms of the flow of the gas.

3. A method for recovering performance of a discharge gas processing apparatus according to claim 1 or 2, wherein the honeycomb catalyst is cut perpendicular to the gas flow direction into a plurality of catalyst pieces, and the catalyst pieces are rearranged such that the deteriorated portion is not disposed on at least the furthest upstream side.

4. A method for recovering performance of a discharge gas processing apparatus according to any one of claims 1 to 3, wherein the honeycomb catalyst is rearranged after the deteriorated portion has been removed.

5. A method for recovering performance of a discharge gas processing apparatus according to any of claims 1 to 3, wherein a portion of the sidewalls of the gas conduits of the honeycomb catalyst is removed through abrasion, the portion covering the deteriorated portion, and then the honeycomb catalyst is rearranged.

6. (Amended) A method for recovering performance of a discharge gas processing apparatus according to any of claims 1 to 5, wherein the predetermined range corresponds to a range from the inlet to a site where the flow of the gas fed into the gas conduits is regulated and straightened, and the predetermined range Lb is determined on the basis of the equation: $Lb=a \cdot Lt$ (wherein Lt represents the sustained

turbulent flow distance and a is a constant).

7. A method for recovering performance of a discharge gas processing apparatus according to any of claims 1 to 6, wherein the range Lb (mm) is represented by equation (A):

$$Lb = a(Ly/Lys \cdot 22e^{0.035(Ly \cdot Uin)}) \quad (A)$$

(wherein Uins (m/s) represents a gas inflow rate, Ly (mm) represents an aperture size, Lys is an aperture size of 6 mm (constant value), and "a" is a constant falling within a range of 3 to 5, when the aperture size (Ly) is 6 mm and the gas inflow rate is 6 m/s).

8.

9. A method for recovering performance of a discharge gas processing apparatus according to any of claims 1 to 7, wherein the honeycomb catalyst is immersed at ambient temperature in regeneration water containing substantially no chlorine and no cleaning component, the catalyst is retransferred from the regeneration water, and residual water is retransferred from the catalyst.